

# **Listening Project**

**of**

**the Coastal Rivers Water Planning & Policy Center**

**Georgia Southern University**

**Statesboro, Georgia**

**Conducted November 11 – 16, 2004**

**Throughout southeast Georgia**

**Report by Sam Collier, Ben Thompson, Dotti Crews,  
Jean McRae, Nick Ogden & Mike Vaquer**

**December 2004**

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# Acknowledgements

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Lisa Williams for arranging all meeting sites and meals, and her logistical support work.

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Our Host locations for the five listening sessions:

The Agriculture Center in Statesboro,

The Coastal Georgia EMC office in Midway, and

The Coastal Georgia Center in Savannah.

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# **Listening Project**

of

## **the Coastal Rivers Water Planning & Policy Center**

### **I. Introduction: Goals & Objectives of the Project**

In an effort to better serve Southeast and Coastal Georgia, The Coastal Rivers Water Planning & Policy Center tapped the thoughts of several key stakeholders on water issues in our region.

The Center was created in 2001 with a continuing mission to “assist policymakers in the formulation of policy designs to best manage sustainable economic growth and natural resource conservation via water planning, research, education and technical assistance.” In order to best accomplish this mission, it is necessary for us to engage stakeholders in our region to determine those issues of critical importance.

The Listening Project is designed to identify the perspective of water users throughout the Coastal Rivers Region by listening to the actual concerns and ideas for improvement of those who have a stake in the water future of the region. Using this information, the Center can better meet the research needs of stakeholders in the region.

The objective of the first round of listening sessions is to identify issues, and not to take a quantitative measure of any given constituency. Thus, the results of the process do not lend themselves to conclusions that any one constituency has a certain viewpoint, but rather gives an idea for the type of issues that arise when representatives of one particular constituency gather to discuss their hopes and fears around the future of water use in Coastal Georgia region.

The balance of this paper is organized in the following way: In Section II we discuss the process used in this first round of five listening sessions. In Section III we report the verbatim ideas of the participants in each of the five sessions. Section IV reports the same verbatim ideas put forward by the participants, but the ideas are organized according to dominant themes emerging from the sessions, where various constituencies’ ideas on each theme are easily readable in the same place. Finally, in Section V we offer concluding remarks and describe our plans for Phase II of the project.

## II. The Process Used in the Listening Sessions

For the first round of the Listening Project, we chose to meet with five different constituencies separately: Industry, Agriculture, City & County governments, Developers and Environmental/Community.

Separate meetings were held in order to foster candid discussions among people with similar interests, in hopes of getting a more comprehensive perspective from each constituency. Clearly, to plan adequately in the future, cross-constituency work will be necessary. But the richness of the discussions revealed many insights into the motivations of each of the constituencies – we very likely would have heard less of substance from each participant if this first round had not been held in separate meetings.

Each meeting had the same format:

A. 30 Minutes to gather, eat a meal together and do brief introductions and overview. Center Director Ben Thompson opened each meeting and welcomed all participants.

B. For the next hour, Sam Collier facilitated a discussion of the five questions posed to each group:

**1. What are the three major concerns of your sector/constituency for Southeast and Coastal Georgia’s water?**

**2. What water management strategies are working or are not working?**

**3. What strategies/policies (e.g., incentives, regulations, etc.) would you like to see changed, and how?**

**4. What strategies/policies should be created?**

**5. What positions are non-negotiable?**

Participants wrote a short description of their response onto sheets of paper, and these were then posted on the wall under the appropriate heading for all in the room to see. In some cases, questions or clarifications to the response were noted, as well. The categories of responses were:

*SCIENCE      TECHNOLOGY      POLICY      FINANCIAL      EDUCATION*

(A distinction made at the outset was that “Science” would be considered “the way the world works”, whereas “Technology” related to “human applications in the real world.” This simple distinction worked quite well in all sessions.)

C. The final 30 minutes was devoted to a wrap-up of the discussion and consideration of potential next steps.

The charts that immediately follow are a verbatim record of the input offered by the five constituencies. Please note, that when an idea occurs in two or more columns *verbatim*, it only means that the subject related to two or more subjects (it was uttered only once by one participant). **However, any time an idea is *phrased with as much as one word different from another idea*, it represents a different person uttering it.**

It is important to note that each participant was assured that no attempt will be made to characterize positions of any person, firm, organization, constituency or sector, and any ideas put forward are taken in the spirit of brainstorming. Nothing contained herein should be deemed to be the position of any person, firm, organization, constituency or sector.

Additionally, participants were not asked to support any particular work – past or present – of the Center, and were assured that participation in this Listening Project would in no way characterize them as taking any position on their or any other comments, these proceedings or future steps. We hope and believe, however, that this process will provide a safe, open and transparent forum for discussion of critical issues related to water in the region and that these participants will be joined by many others to avail themselves of the Center’s research assistance.

### The Participants

Participants from the five Constituencies are listed in the Appendix.

### The Listening Team

Convener of each Session– Ben Thompson – Director, Coastal Rivers Water Planning & Policy Center, Georgia Southern University

Facilitator of each Session – Sam Collier – Strategic Planning Consultant, Collier, Branscomb & Associates, Inc., Atlanta, Georgia

Dotti Crews – Georgia Water Planning & Policy Center, Andrew Young School of Policy Studies, Georgia State University

Jean McRae – The Vacquer Firm, Savannah, Georgia

Nick Ogden – Consultant, Coastal Rivers Water Planning & Policy Center, Georgia Southern University

Mike Vacquer – The Vacquer Firm, Savannah, Georgia

Lisa Williams – Office of External Relations, College of Business Administration, Georgia Southern University

### Section III. Verbatim Ideas from the Five Listening Sessions

What follows on the charts in this section is a verbatim record of the input offered by the five constituencies. When an idea occurs in two or more columns *verbatim*, it only means that the idea related to two or more subjects (it was uttered only once by one participant). **However, any time an idea is phrased with as much as one word different from another idea, it represents a different person uttering it.**

What categories (science, technology, policy, financial and education) each idea related to was decided by the participant during the listening session, and participants were able to see the chart for their constituency as the discussion progressed.

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Because the opinions and positions expressed in the responses reported about environmental perspectives are those of only one individual, these should not be interpreted as being representative of the entire stakeholder group of which his organization is a part. Further, this was the one group where interaction between participants was not available, so this session does not represent the fruits of group brainstorming.

# AGRICULTURE

## SCIENCE

## TECHNOLOGY

## POLICY

## FINANCIAL

## EDUCATION

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	<p>"Politics" of Water Policy vs. Sound Science</p> <p>A Balance of Supply For Now &amp; The Future</p> <p>Availability of Water for Irrigation (Agricultural) (S, T)</p>	<p>Is the Use of Water Properly Documented? (T, P)</p> <p>Who Will Be Responsible for Water Use Record Keeping? (T, P)</p> <p>Availability of Water for Irrigation (Agricultural) (S, T)</p>	<p>Allowing Additional Well (P, F)</p> <p>What Regulations Do We Face Now, and 5, 10 Years?</p> <p>Transfer &amp; Sales of Water (P, F)</p> <p>Regulation &amp; Control Metering Flow Taxes on Amount Pumped (P, F)</p> <p>Water Permitting and Trading (P, F)</p> <p>What Restrictions Are Coming, If Any?</p> <p>Allocation</p> <p>TMDL Point Source - Timber</p>	<p>Allowing Additional Well (P, F)</p> <p>Transfer &amp; Sales of Water (P, F)</p> <p>Regulation &amp; Control Metering Flow Taxes on Amount Pumped (P, F)</p> <p>Water Permitting and Trading (P, F)</p>	
<b>WHAT'S WORKING</b>		<p>New Nozzle Packages on Pivots (T, F)</p> <p>Variable Rate Application with Pivots (T, F)</p> <p>"End Gun" Controls on Pivots (T, F)</p> <p>Test Wells (T, F)</p> <p>Filter Strips (P, T, E)</p> <p>Buffer Strips (T, P, E)</p>	<p>Timber BMP (P, F, E)</p> <p>Timber Audits on BMP by State (P, F, E)</p> <p>Document Use &amp; Production</p> <p>4 Inch Wells - 90 gal/min.</p> <p>Filter Strips (P, T, E)</p> <p>Buffer Strips (T, P, E)</p>	<p>New Nozzle Packages on Pivots (T, F)</p> <p>Variable Rate Application with Pivots (T, F)</p> <p>"End Gun" Controls on Pivots (T, F)</p> <p>Test Wells (T, F)</p> <p>Timber BMP (P, F, E)</p>	<p>Cooperative Efforts with LandOwners, Farmers, Loggers, etc. to Solve Problems</p> <p>Education About Irrigation Efficiencies</p> <p>Timber BMP (P, F, E)</p> <p>Filter Strips (P, T, E)</p> <p>Buffer Strips (T, P, E)</p>

# AGRICULTURE

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
WHAT'S NOT WORKING			<p>Over-Regulation in Some Areas</p> <p>Permitting Procedures Not Fair</p> <p>Arbitrary Decisions</p>		
SUGGESTED CHANGES	<p>More/Better Information for Policy Makers (S, P, E)</p>		<p>Farm &amp; Household Input Before Policy Is Created</p> <p>Get More Input from Ag Sector on Policy. They are Less Politically Motivated.</p> <p>More Room for Input from Agriculture Users in Policy Making</p> <p>Household &amp; Other Non-Eessential Uses Limited</p> <p>No - To "Incentives" or Further Regulation of Forest Practices</p> <p>Permitting Process Should Be Adjusted on a More Local Basis Instead of Regional</p> <p>Permits for Pond Building</p> <p>Seasonal Ag. Use Accounted For - Don't Assume Year-Long Pumping for Agriculture.</p> <p>Will Permits Be Allowed to Drill Wells?</p>	<p>More Cost-Share Money for Irrigation Efficiencies</p> <p>More Cost Share Money for Irrigation Ponds</p> <p>Funds to Build Pond</p>	<p>More/Better Information for Policy Makers (S, P, E)</p>

# AGRICULTURE

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
			More/Better Information for Policy Makers (S, P, E)		
NEW STRATEGIES			Agriculture Water Policy Board Create Pond Permit	Funds for Pump Man to Measure How Deep the Pump Was in the Water	
NON-NEGOTIABLE POSITIONS			Transfer of Water Out of Area Selling Water Rights Agriculture Use Only #2 Behind Human Consumption Within Area Private Property Rights for LandOwners Giving Up Water Use During Certain Periods No Cutting Ag Water Off During Season State Claiming Water Rights Under Private Lands Point Source Timber TMDL		

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# CITY-COUNTY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	Saltwater Intrusion	Use of Aquifer (S, T, P, F)	Rewards for Conservation Efforts (P, F)	Rewards for Conservation Efforts (P, F)	
	Limitation of Quantity		Consistency in Policy & Enforcement	Use of Aquifer (S, T, P, F)	
	Sustainable Use of Floridan Aquifer		Development of Statewide Plan that Recognizes Local Concerns		
	Adequate Future Supply (S, P)		Adequate Future Supply (S, P)		
	Plan to Recognize Differences in Surface & Groundwater Issues (S, P)		Plan to Recognize Differences in Surface & Groundwater Issues (S, P)		
	Sustainable Use of Aquifer Upper/Lower (S, P)		Sustainable Use of Aquifer Upper/Lower (S, P)		
	Use of Aquifer (S, T, P, F)		Use of Aquifer (S, T, P, F)		
			Protection from Saltwater Intrusion/Encroachment		
		Consistency of Application of Existing Policy			
		Water Use Permit & Consistency			
		How Water Is Allocated Current Cap			

# CITY-COUNTY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
WHAT'S WORKING	Development of Sound Science Initiative		<p>Current EPD Policy Implementation of the Interim Strategy - Working within the Last Year, since Dr. Couch is Director</p> <p>Recent Implementation of Interim Policy - Within the Last Year - Dr. Couch</p> <p>Interim Strategy by EPD is Working</p>		
WHAT'S NOT WORKING			<p>Water Supply Planning</p> <p>Water Conservation</p> <p>Interstate Planning - Georgia/Florida &amp; Georgia/South Carolina</p> <p>Consistency in Enforcement</p> <p>Existing Planning Policy</p> <p>Permits Needed for 10,000 GPD Withdrawal - Reduce Threshold for Groundwater Withdrawal</p> <p>Allocation Process</p> <p>Modification to Lower Floridan Policy - Not Supported By Science</p>		Laissez-Faire Attitude About Water Use

# CITY-COUNTY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>WHAT'S NOT WORKING</b>			<p>No Historic Consistency in Enforcement - Only Large Systems Scrutinized, and Reporting Makes It Worse - Small Systems not</p> <p>No Consolidation of Required Water Management Plan</p> <p>Public Participation with Policy</p> <p>Restriction on Use of Aquifer</p>		
<b>SUGGESTED CHANGES</b>			<p>Review Usage Data and Adjust Permits</p> <p>Restrict Some Large Commercial Users from Aquifer - If They Could Use Surface Water</p> <p>Consistent Application of Existing Policy Before Beginning Something New</p> <p>Enforcement of Cap</p> <p>Agricultural Permitting</p> <p>Ag Permits - Ground &amp; Surface - Issued on Same Basis as Others - Presently, No Volume, No Use, Runs with the Land</p> <p>Incentives for Agricultural Users (P, F)</p> <p>Need Public Participation in Process (P, E)</p>	<p>Incentives for Agricultural Users (P, F)</p> <p>Invest in Irrigation Technology</p> <p>Fund the Development of a Water Supply Plan for Coastal Georgia - a Component of Statewide Water Management Plan</p>	<p>Need Public Participation in Process (P, E)</p>

# CITY-COUNTY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>NEW</b>			Incentives for Alternate Sources (Surface) (P, F)	Recognize Past & Current Efforts in Capital Improvements & Conservation (P, F, E)	Recognize Past & Current Efforts in Capital Improvements & Conservation (P, F, E)
<b>STRATEGIES</b>			System that Recognizes Conservation Efforts (P, F, E)	System that Recognizes Conservation Efforts (P, F, E)	System that Recognizes Conservation Efforts (P, F, E)
			Implement Water Use Policy Consistent with Sound Science and Needs of Users	Place an Intrinsic Value on a Gallon of Water	
			Incentives to Have Large Groundwater Users Switch to Surface (P, F)	Incentives to Have Large Groundwater Users Switch to Surface (P, F)	
			Need to Revisit Permitting Thresholds 100K GPD plus Public Systems	Incentives for Alternate Sources (Surface) (P, F)	
			Lower Permit Thresholds		
			Enforcement Section Needs to be Created and Funded (P, F)	Enforcement Section Needs to be Created and Funded (P, F)	
			Recognize Past & Current Efforts in Capital Improvements & Conservation (P, F, E)		

# CITY-COUNTY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>NEW STRATEGIES</b>	Science + Economics + Politics = Policy		Implement Water Conservation Policy (P, F)  Science + Economics + Politics = Policy	Implement Water Conservation Policy (P, F)  Science + Economics + Politics = Policy	
<b>NON-NEGOTIABLE POSITIONS</b>	Sound Science Initiative Must Be Completed  Coastal Portion of State-Wide Plan Must be Based on SSI (S, P)  Quality of Drinking Water (S, T)		Coastal Portion of State-Wide Plan Must be Based on SSI (S, P)		
		Quality of Drinking Water (S, T)			

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# DEVELOPERS

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
MAJOR CONCERNS	Monitoring Shallow Well Water Usage - Non-Aquifer Irrigation Water (S, P, F)	Public Perception of Surface Treated Water (S, T, E)	Monitoring Shallow Well Water Usage - Non-Aquifer Irrigation Water (S, P, F)	Monitoring Shallow Well Water Usage - Non-Aquifer Irrigation Water (S, P, F)	
		Long-Term Capacity & Availability (S, T)	Water "Credit" Trading (P, E)		Water "Credit" Trading (P, E)
	Public Perception of Surface Treated Water (S, T, E)	Availability Cost Delivery System (Major Trunk Lines) (T, P)	Availability Cost Delivery System (Major Trunk Lines) (T, P)		Public Perception of Surface Treated Water (S, T, E)
	Long-Term Capacity & Availability (S, T)	Re-Use Application (T, E)	Policy Buy-In By Small Communities		Re-Use Application (T, E)
	Need for Regional Supplier Network (S, T, P, F, E)	Need for Regional Supplier Network (S, T, P, F, E)	Need for Regional Supplier Network (S, T, P, F, E)	Need for Regional Supplier Network (S, T, P, F, E)	Need for Regional Supplier Network (S, T, P, F, E)
		Tracking Agricultural Water Use (P, F)	Tracking Agricultural Water Use (P, F)		
		Allocation of Residential, Agricultural & Industrial Priority			
		Confiscation of Existing Water Permits (Unused Capacity)			
		Over-Restrictive Water Withdrawal Policy			
		Decisions Based on Science			

# DEVELOPERS

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
			Predictable Source/Supply Unregulated Deep Wells, Not Monitored		
WHAT'S WORKING			City of Savannah Long-Term Policies  Well Head Metering For Community Water Systems  Moratorium Pushing Communities into Compliance with Regional Authority (Intergovernmental Cooperation)  Savannah Policy on Providing Capacity to New Development		Increase in Public Education/ Community Partnering
WHAT'S NOT	Goal of 10 Million GPD Savings Achieved - What Next? Data? No Log of Savings (S, P)		Goal of 10 Million GPD Savings Achieved - What Next? Data? No Log of Savings (S, P)  Non-Connection of Various Municipal Systems to Standards - Costs, Etc. End Cost per Gallon (P, F)	Moratorium Before Science is Forcing Bankruptcy (P, F)  Non-Connection of Various Municipal Systems to Standards - Costs, Etc. End Cost per Gallon (P, F)	

# DEVELOPERS

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
WORKING			<p>EPD Withdrawal Permitting</p> <p>County Control of Water "Banks"</p> <p>Lack of Intergovernmental Cooperation</p> <p>Moratorium Before Science is Forcing Bankruptcy (P, F)</p>		
SUGGESTED	Use Sound Science to Increase Permitted Withdrawal (S, T, P)	Use Sound Science to Increase Permitted Withdrawal (S, T, P)	Use Sound Science to Increase Permitted Withdrawal (S, T, P)	Establishing Incentives for Water Conservation (P, F)	Establishing Incentives for Water Conservation (P, F)
CHANGES			<p>End Discrimination Between City of Savannah Obtaining Economic Benefit for Permit vs. Other Permit Holders (P, F)</p> <p>End Moratorium Based on Sound Science Study</p> <p>Reconcile Priorities Between Agriculture, Industry &amp; Consumer-Residential</p>	<p>End Discrimination Between City of Savannah Obtaining Economic Benefit for Permit vs. Other Permit Holders (P, F)</p>	

# DEVELOPERS

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
		Harder Push to Require Re-Use Systems (for Irrigation) (T, P, F)	Harder Push to Require Re-Use Systems (for Irrigation) (T, P, F)	Harder Push to Require Re-Use Systems (for Irrigation) (T, P, F)	
NEW STRATEGIES				Regional Water/Sewer Authority - At Least: Savannah/Chatham County, All of Effingham Counties, Bryan County & All Cities  Create Regional Water Authority with Diverse Board of Stakeholders  Coastal Georgia Regional Water/Sewer Authority	Identify Top 5 to 10 Industrial Water Users, and Float a MultiMillion Dollar Bond Issue to Relieve Pressure/Demand on the Aquifer
NON-NEGOTIABLE POSITIONS	Fund Sound Science Study Completion (S, P, F)		Fund Sound Science Study Completion (S, P, F)  Maintain Existing Groundwater Permits  Predictable Entitlement Process		Fund Sound Science Study Completion (S, P, F)

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# ENVIRONMENTAL

SCIENCE

TECHNOLOGY

POLICY

FINANCIAL

EDUCATION

MAJOR CONCERNS			<p>Policy Makers' &amp; Implementers' Lack of Understanding About Functions &amp; Services of Natural Systems (P, E)</p> <p>Policy Makers' &amp; Implementers' Under-Valued Relationships Between Economic Activities &amp; Natural Resources</p> <p>Lack of Systemic Analysis - Case-By-Case Permitting</p> <p>Lack of Long-Term Perspective, Preoccupation with Short-Term Benefits &amp; Concentrated Benefits vs. Diffuse Costs</p>		<p>Policy Makers' &amp; Implementers' Lack of Understanding About Functions &amp; Services of Natural Systems (P, E)</p>

# ENVIRONMENTAL

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>WHAT'S WORKING</b>			Vehicle for Statewide Planning Has Promise  Coastal Management Program Networks Existing Authorities Within the 11-County Coastal Region (More Implementation Needed)		
<b>WHAT'S NOT WORKING</b>	More Targeted Research Needed, Likened to Permit Issues, Resource Management	Tendency to Accept "Engineered" "Solution" that Cause or Perpetuate Problems (T, P)	Tendency to Accept "Engineered" "Solution" that Cause or Perpetuate Problems (T, P)		
	"Management" Requires Information/Control Lacking in Existing Institutions/Procedures (S, P)		"Management" Requires Information/Control Lacking in Existing Institutions/Procedures (S, P)		
			Under-Funding of Regulatory Enforcement, Monitoring, Assessment (No Significant Permit Fees in Georgia) (P, F)	Under-Funding of Regulatory Enforcement, Monitoring, Assessment (No Significant Permit Fees in Georgia) (P, F)	
			Distribution of Fees Earmarked for Environmental Management/ Protection (P, F)	Distribution of Fees Earmarked for Environmental Management/ Protection (P, F)	
			Gap Between Research Available, Applied		

# ENVIRONMENTAL

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
SUGGESTED			Significantly Increase Permit Fees & Dedicate Them to Monitoring & Enforcement & Research (P, F)	Significantly Increase Permit Fees & Dedicate Them to Monitoring & Enforcement & Research (P, F)	Inform & Organize Nature-Based Business Interests - Commercial Fishing, Recreational Fishing, Tourism, etc.
CHANGES			<p>Need to Address "Home Rule" Aspects of Resource Use &amp; Cumulative Impact</p> <p>Rule Amendments/ Legislation to Make Decisions Based on Carrying Capacity Systemic Conditions &amp; Consequences - Cumulative &amp; Over Time</p> <p>"Adaptive Management" - Formal Process of Self-Evaluation - Integrates Across Fragmented Program Areas</p> <p>"Adaptive Management" Rather Than Rigid Structure - Answer: "Do Decisions Meet Management Objective?"</p> <p>Need to Coordinate &amp; Integrate Permitting Prior to Any Resource Disturbance</p>		

# ENVIRONMENTAL

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<p style="text-align: center;"><b>NEW</b></p> <p style="text-align: center;"><b>STRATEGIES</b></p>			<p>Evaluate Efficiency of Water Use in Allocation Decisions For All User Groups -Standards per Sector - Invest in Conservation Strategies As Justified (P, F)</p> <p>Standing Committee to Review Info &amp; Gaps for Massive Projects (may affect 6 projects per year)</p> <p>Regional Resource Management &amp; Growth Policy (Covering All Bodies, Resources, Habitat, Sustainable Development, etc.) (By Watershed, Resource District)</p>	<p>Evaluate Efficiency of Water Use in Allocation Decisions For All User Groups -Standards per Sector - Invest in Conservation Strategies As Justified (P, F)</p>	
<p style="text-align: center;"><b>NON-</b></p> <p style="text-align: center;"><b>NEGOTIABLE</b></p> <p style="text-align: center;"><b>POSITIONS</b></p>			<p>Water as a Public Resource (Not a Commodity - No Permit Trading or "Property" Aspects)</p> <p>Science-Based Decisions Only</p> <p>Precautionary Principle When Risks "Great," Science Inconclusive</p> <p>Monitoring &amp; Assessment Linked to Specific Activities (Prevent Adverse Impact)</p>		

# ENVIRONMENTAL

SCIENCE

TECHNOLOGY

POLICY

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# INDUSTRY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	Availability (S, T)	Availability (S, T)	Water Ownership		Public Understand Impact of Policy
	Water Quality		Ownership (P, F)	Ownership (P, F)	
	Quality of water - Salt Water intrusion & Surface Waters		Permit Equals Easy Target	Paying for Science & Policy (e.g., SSI)	
	Overall Environmental Impact		Water Rights Redefinition	Price of Groundwater is 1/3rd price of Surface Water	
	Water Levels		Upper Floridan Aquifer/Coastal Georgia Management Plan Objectives		
	Dissolved Oxygen		Allocations - Arbitrary; No Consideration of Technology/Processes		
	Incomplete SSI Study		Who Pays Bill - Now & Future (P, F)	Who Pays Bill - Now & Future (P, F)	
			Consumptive vs. Non-Consumptive		

# INDUSTRY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
WHAT'S WORKING	Sound Science Initiative - So Far	Groundwater Use Reduction (Industry)	Push for Planning  Stakeholder Development  Drought Controls (partially)	Conservation on Part of Industry  Environment vs. Commerce Balance  Conservation Mindset (Dollars Saved in Treatment)	
WHAT'S NOT WORKING		Resource Development (T, P)  Resource Monitoring (Root Cause Identification) (T, P)	Resource Development (T, P)  Resource Monitoring (Root Cause Identification) (T, P)  Conservation Policy  Strategic Planning - State & Local  Linking Allocations to Development  Interim Strategy  Failing to Target Pass Through Uses		Court of Public Opinion  Public Education  Conservation (Public at Large)

# INDUSTRY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
SUGGESTED CHANGES	Define Ecological Requirements		Incentives for Surface Water Use in Groundwater Areas (limited/coastal) (P, F)	Incentives for Surface Water Use in Groundwater Areas (limited/coastal) (P, F)	Educate Public re: Water Rights Impacts at Personal & Local Level
	More Fully Measure Upper Floridan Aquifer Losses/Uses		More Funding for Surface Water Treatment High Use Areas (P, F)	More Funding for Surface Water Treatment High Use Areas (P, F)	
		Encourage Use of New Water Sources (T, P)	Encourage Use of New Water Sources (T, P)		
		Increased Emphasis - Development of More Cost-Effective Surface Water Treatment Strategies (T, P)	Increased Emphasis - Development of More Cost-Effective Surface Water Treatment Strategies (T, P)		
		More Technical Support for Agriculture (T, P)	More Technical Support for Agriculture (T, P)		
		Push More on Technology Development (T, P)	Push More on Technology Development (T, P)		

# INDUSTRY

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
NEW STRATEGIES		Agricultural Use Smart Guidance (T, P)  Government Commitment to Resource Development (T, P)  Aquifer Storage & Retrieval from Major River Basins (T, P)	Agricultural Use Smart Guidance (T, P)  Government Commitment to Resource Development (T, P)  Aquifer Storage & Retrieval from Major River Basins (T, P)  Realistic Growth Planning & Implementation  Tax Incentives - Big Industry & "The Little Guy"	Tax Incentives - Big Industry & "The Little Guy"	
NON-NEGOTIABLE POSITIONS	Sound Science	Lack of Consistent Long Term Policy Plan & Implementation (T, P)	Lack of Consistent Long Term Policy Plan & Implementation (T, P)  Regulations Have to Affect All Sectors  Giving General Public All Water Ownership  Complete Capitulation (to any side)		Unbiased & Truthful Information/ Education

Verbatim record of the input offered by the five constituencies. When an idea occurs in two or more columns *verbatim*, it only means that the idea related to two or more subjects (it was uttered only once by one participant). **However, any time an idea is phrased with as much as one word different from another idea, it represents a different person uttering it.**

No attempt will be made to characterize positions of any person, firm, organization, constituency or sector, and any ideas put forward are taken in the spirit of brainstorming. Nothing contained herein should be deemed to be the position of any person, firm, organization, constituency or sector.

## IV. Themes Apparent From the Listening Sessions

While the constituencies we met with come from divergent backgrounds, there were clear trends that emerged from the composite of all input. We have re-arranged the input – *with no further elaboration of it* – into these eleven themes, so that the reader may see in a visually graphic format just how the various concerns, ideas and positions offered during the listening sessions relate across the different constituencies.

This perspective of the themes in water issues will allow us to better determine what type of research the Center can perform as we move forward from the Listening Process. It will also allow us to re-arrange the stakeholders into cross-constituency working groups that make the most sense as we move forward. Arranging participants into working groups will allow us to remain in more focused dialogue with the stakeholders who have a particular interest in each of the various research topics over the course of our research program.

Please note one format change from the previous section. Whereas in the first section, the code in parentheses indicated how many subjects (Science, Technology, Policy, Finance or Education) a given idea related to, in this section, the code in parentheses relates to which constituency gave the idea:

**(Ag) = Agriculture**

**(C-C) = City-County**

**(Dev) = Developers**

**(Env) = Environmental**

**(Ind) = Industry**

As in the last section, when an idea occurs in two or more columns *verbatim*, it only means that the subject related to two or more subjects (it was uttered only once by one participant). **However, any time an idea is phrased with as much as one word different from another idea, it represents a different person uttering it, even if from the same constituency.**

### **Themes**

**Access & Certainty:** Many concerns about access to water now and particularly in the future were raised. Access with Certainty over time was even more important. Stakeholders did not want to be surprised with unplanned reductions. So, it would seem that these two concerns can come into conflict where allocations are made prior to good science that determines that those allocations may not be wise at a later time. The need for certainty argues for precaution, even in the face of calls for increased access.

**Buy-In – Input – Planning:** Concerns about the level of input into planning and solutions to problems were raised often. Most stakeholders want to have significant input into the planning

process. They enjoyed being asked about their concerns and their suggestions, and they have plenty of suggestions. They also seem willing to work to implement good policy options, because the resource needs require

**Conservation:** Participants from all constituencies had a number of ideas about where conservation is working, where it could work and what it will take to get it working. Financial factors come into play often on conservation and efficiency, and it would be wise to see whether current financial drivers incentivize conservation or resource waste. Concern also was expressed about what happens to the gains made through conservation – if gains do not go to relieve the strain on the resource, but rather reallocated to new users, the problem perpetuates.

**Good Science:** The need for good scientific data was expressed often by each group. Often, the term “sound science” was mentioned, and often this term was used to refer to the Sound Science Initiative (SSI) being conducted in the region. This section on Good Science, however, includes not only SSI discussion, but other ideas about good science not directly related to SSI.

There was a great deal of support for the Sound Science policies of the last year, under the direction of Dr. Carol Couch, Director of the Environmental Protection Division of the Georgia Department of Natural Resources.

There was broad support for good science as a baseline measure of how much of the resource is needed to protect the aquifer and the environment.

**Groundwater vs. Surface Water:** Many stakeholders are concerned about the sustainability of groundwater withdrawals, and this discussion often turned to the differences between groundwater vs. surface water withdrawal. There was a lot of discussion about what it would take to convert groundwater users to surface water, taking pressure off the aquifer. This, of course, is dependent on a study of the impact to surface waters of adding this much use. But the idea that using surface water is three times as expensive as using groundwater led participants to discuss what it would take to get users who could do so to convert.

**Non-Regulated Users – Monitoring:** Most participants in these sessions would be considered regulated users, and they recognized that there are other, very diffuse users around the region who are not regulated, more still who are not monitored or even identified. There was a great deal of concern that small, diffuse users would not be identified yet have tremendous inefficiencies. The concern was that this pressure on the resource can only be solved by coming after the identified, larger users, even though they may have made great strides in efficiency and conservation in terms of some unit of productivity.

**Ownership – Rights:** Questions or concerns about changes in water ownership came up with each constituency. There seems to be a great deal of concern about changes to water ownership by quite a few, and confusion about what that all means by many. It is interesting to note that most concerns arise in the context of some change to water ownership – One group calls for water to remain a public resource whereas another group fears that water will be changed to be a public resource.

**Priorities:** Several concerns about priority of use were voiced directly. It is interesting to note the tension between the widely stated desire for human consumption to be highest priority and the sense that if that human consumption is too far removed from the region, then lower priority needs in the region will never be met. And parsing out human consumption from other household uses such as lawn irrigation concerned lower priority users, such as farmers.

**Regional:** Solutions that span municipal and even state boundaries were offered, and collected together here. The regional water authority with taxing and bonding power was mentioned by at least three participants in the developers session, and generated a lot of interest. Clearly, the need in the Chatham and Effingham county region is sufficient to place this in a high priority status.

**Water Quality:** We intentionally posed the initial open-ended question “What are the three major concerns of your sector/constituency for Southeast and Coastal Georgia’s water?” in large part to see what stakeholders would offer without prompting. While quantity issues predominated, many concerns about water quality were voiced directly. And, of course, quality and quantity issues are interrelated, and water quality issues tend to get more pronounced as the resource is tapped closer to its capacity. Nevertheless, we have separated out Water Quality statements in one section for review.

**Who Pays:** Several comments about who is paying for water issues now and who ought to be paying were raised, prompting us to categorize these together to see what further research and discussion of these might be warranted. One of the first observations in the industry session was “well, none of your major concerns fall under the Financial category – what do you make of that?” The answer came back, “Water is really cheap to get from the source.”

# Access & Certainty

Access to water and certainty of that access over time were very prominent concerns among many participants

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	Water Levels (Ind)		Predictable Source/Supply (Dev)		
	Availability (Ind)	Availability (Ind)	What Regulations Do We Face Now, and 5, 10 Years? (Ag)		
	Limitation of Quantity (C-C)		Allocation (Ag)		
	Long-Term Capacity & Availability (Dev)	Long-Term Capacity & Availability (Dev)	Consistency in Policy & Enforcement (C-C)		
	Availability of Water for Irrigation (Agricultural Irrigation) (Ag)	Availability of Water for Irrigation (Agricultural Irrigation) (Ag)	What Restrictions Are Coming, If Any? (Ag) Allocations - Arbitrary; No Consideration of Technology/ Processes (Ind)		
Adequate Future Supply (C-C)		Water Use Permit & Consistency (C-C) How Water is Allocated Current Cap (C-C) Adequate Future Supply (C-C) Confiscation of Existing Water Permits (Unused Capacity) (Dev) Permit Equals Easy Target (Ind) Consistency of Application of Existing Policy (C-C)			
<b>WHAT'S WORKING</b>			Drought Controls (partially) (Ind)		
<b>WHAT'S NOT WORKING</b>			Consistency in Enforcement (C-C) Over-Regulation in Some Areas (Ag) Linking Allocations to Development (Ind)		

# Access & Certainty

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
SUGGESTED CHANGES			Will Permits Be Allowed Drill Wells? (Ag) Consistent Application of Existing Policy Before Beginning Something New (C-C) Review Usage Data and Adjust Permits (C-C) Agricultural Permitting (C-C) Enforcement of Cap (C-C)		
NEW STRATEGIES			Enforcement Section Needs to Be Created & Funded (C-C)	Enforcement Section Needs to Be Created & Funded (C-C)	
NON-NEGOTIABLE POSITIONS		Lack of Consistent Long Term Policy Plan & Implementation (Ind)	Predictable Entitlement Process (Dev) Maintain Existing Groundwater Permits (Dev) No Cutting Ag Water Off During Season (Ag) Giving Up Water Use During Certain Periods (Ag) Regulations Have to Affect All Sectors (Ind) Lack of Consistent Long Term Policy Plan & Implementation (Ind)		

# Buy-In - Input - Planning

Participants seek stakeholder input into water planning as well as how solutions are crafted

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>			Policy Buy-In By Small Communities (Dev) Development of Statewide Plan That Recognizes Local Concerns (C-C)		Public Understand Impact of Policy (Env)
<b>WHAT'S WORKING</b>			Stakeholder Development (Ind) Vehicle for Statewide Planning has Promise (Env) Push for Planning (Ind)		Cooperative Efforts with LandOwners, Farmers, Loggers, etc. to Solve Problems (Ag) Increase in Public Education/Community Partnering (Dev)
<b>WHAT'S NOT WORKING</b>			Public Participation with Policy (C-C) Allocation Process (C-C) Water Supply Planning (C-C) Existing Planning Policy (C-C) Arbitrary Decisions (Ag) Permitting Procedures Not Fair (Ag) Strategic Planning - State & Local (Ind)		Court of Public Opinion (Ind) Public Education (Ind)
<b>SUGGESTED CHANGES</b>			Need Public Participation in Process (C-C) Farm & Household Input Before Policy is Created (Ag) More Room for Input from Agriculture Users in Policy Making (Ag)		Educate Public re" Water Rights Impacts at Personal & Local Level (Ind) Inform & Organize Nature-Based Business Interests - Commercial Fishing, Recreational Fishing, Tourism, etc. (Env)

# Buy-In - Input - Planning

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
	More/Better Information from Policy Makers (Ag)		Get More Input from Ag Sector on Policy. They are less Politically Motivated (Ag) Need Public Participation in Process (C-C) More/Better Information from Policy Makers (Ag)		Need Public Participation in Process (C-C) More/Better Information from Policy Makers (Ag)
NEW STRATEGIE		Government Commitment to Resource Development (Ind)	Government Commitment to Resource Development (Ind) Realistic Growth Planning & Implementation (Ind) Agriculture Water Policy Board (Ag)		
NON-NEGOTIABLE POSITIONS			Complete Capitulation to Any Side (Ind)		Unbiased & Truthful Information/Education (Ind)

# Conservation

Conservation strategies came up often, with many ideas for implementation

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	Overall Environmental Impact (Ind)	Re-Use Application (Dev)	Lack of Systemic Analysis - Case-by-Case Permitting (Env)  Policy Makers' & Implementers' Lack of Understanding About Functions & Services of Natural Systems (Env)  Rewards for Conservation Efforts (C-C)  Lack of Long-Term Perspective, Preoccupation with Short-Term Benefits & Concentrated Benefits vs. Diffuse Costs (Env)  Policy Makers' & Implementers' Under-Valued Relationships Between Economic Activities & Natural Resources (Env)		Re-Use Application (Dev)  Policy Makers' & Implementers' Lack of Understanding About Functions & Services of Natural Systems (Env)

# Conservation

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
WHAT'S			Well Head Metering for Community Water Systems (Dev)	Conservation on Part of Industry (Ind)	Education About Irrigation Efficiencies (Ag)
WORKING		"End Gun" Controls on Pivots (Ag) Variable Rate Application with Pivots (Ag)		Conservation Mindset (Dollars Saved in Treatment) (Ind) "End Gun" Controls on Pivots (Ag) Variable Rate Application with Pivots (Ag) Timber BMP (Ag) Groundwater Use Reduction (Ind)	
		Buffer Strips (Ag) Filter Strips (Ag) New Nozzle Packages on Pivots (Ag)	Buffer Strips (Ag) Filter Strips (Ag)		Timber BMP (Ag) Buffer Strips (Ag) Filter Strips (Ag)
				New Nozzle Packages on Pivots (Ag)	

# Conservation

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
WHAT'S NOT WORKING	Goal of 10 Million Gal/Day Savings Achieved - What Next? Data? No Log of Savings (Dev)		Water Conservation (Ind)  Conservation Policy (Ind)  Goal of 10 Million Gal/Day Savings Achieved - What Next? Data? No Log of Savings (Dev)  Failing to Target Pass-Through Uses (Ind)		Laissez-Faire Attitude About Water Use (C-C)
SUGGESTED CHANGES		Harder Push to Require Re-Use Systems (for Irrigation) (Dev)  More Technical Support for Agriculture (Ind)	Establishing Incentives for Water Conservation (Dev)  Harder Push to Require Re-Use Systems (for Irrigation) (Dev)  Incentives for Agricultural Users (C-C)  More Technical Support for Agriculture (Ind)	Establishing Incentives for Water Conservation (Dev)  Harder Push to Require Re-Use Systems (for Irrigation) (Dev)  Incentives for Agricultural Users (C-C)  More Cost-Share Money for Irrigation Efficiencies (Ag)  Invest in Irrigation Technology (C-C)	

# Conservation

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
NEW STRATEGIES			<p>Recognize Past &amp; Current Efforts in Capital Improvements &amp; Conservation (Ind)</p> <p>Agricultural Use Smart Guidance (Ind)</p> <p>Implement Water Conservation Policy (C-C)</p> <p>System that Recognizes Conservation Efforts (C-C)</p> <p>Evaluate Efficiency of Water Use in Allocation Decisions For All User Groups - Standards per Sector - Invest in Conservation Strategies as Justified (Env)</p>		
NON-NEGOTIABLE POSITIONS					

# Good Science

A Number of comments related to the need for good science, whether it be the "Sound Science Initiative" (SSI) or other needs for scientific information

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	"Politics" of Water vs. Sound Science (Ag)  Incomplete SSI Study (Ind)		Decisions Based on Science (Dev)		
<b>WHAT'S WORKING</b>	Sound Science (C/C)  Sound Science Initiative - So Far (Ind)  Development of Sound Science Initiative (C/C)	Test Wells (Ag)	Science-Based Decisions Only (Env)  Precautionary Principle When Risks "Great," Science Inconclusive (Env)  Monitoring & Assessment Linked to Specific Activities (Prevent Adverse Impact) (Env)  Document Use & Production (Ag)	Test Wells (Ag)	
<b>WHAT'S NOT WORKING</b>	More Targeted Research Needed, Likened to Permit Issues, Resource Management (Env)  "Management" Requires Information/ Control Lacking in Existing Institutions/ Procedures (Env)	Resource Monitoring (Root Cause Identification) (Ind)	Resource Monitoring (Root Cause Identification) (Ind)  "Management" Requires Information/ Control Lacking in Existing Institutions/ Procedures (Env)  Gap Between Research Available, Applied (Env)  Tendency to Accept Engineered "Solution" that Cause or Perpetuate Problems (Env)  Moratorium Before Science is Forcing Bankruptcy (Dev)  Modification to Lower Floridan Policy - Not Supported By Science (Ind)  Resource Development (Ind)	Moratorium Before Science is Forcing Bankruptcy (Dev)	

# Good Science

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>SUGGESTED</b>			"Adaptive Management" - Formal Process of Self-Evaluation - Integrates Across Fragmented Program Areas (Env)		
<b>CHANGES</b>			Rule Amendment/Legislation to make Decisions Based on Carrying Capacity Systemic Conditions & Consequence - Cumulative & Over Time (Env)		
			"Adaptive Management" Rather Than Rigid Structure - Answer: "Do Decisions Meet Management Objective?" (Env)		
			Resource Development (Ind)		
			Need to Coordinate & Integrate Permitting Prior to Any Resource Disturbance (Env)		
<b>NEW</b>	Science + Economics + Politics - Policy (C-C)		Standing Committee to Review Info & Gaps for Massive Projects (may affect 6/yr) (Env)	Funds for the Pump Man to Measure How Deep the Pump Was in the Water (Ag)	
<b>STRATEGIES</b>	Science + Economics + Politics - Policy (C-C)		Implement Water Use Policy Consistent with Sound Science & Needs of Users (C-C)		
	Science + Economics + Politics - Policy (C-C)		Science + Economics + Politics - Policy (C-C)		
<b>NON-NEGOTIABLE POSITIONS</b>	Sound Science (Ind)		Science-Based Decisions Only (Env)		
	Sound Science Initiative Must Be Completed (C-C)		Precautionary Principle When Risks "Great," Science Inconclusive (Env)		
	Fund Sound Science Study Completion (Dev)		Monitoring & Assessment Linked to Specific Activities (Prevent Adverse Impact) (Env)		
			Fund Sound Science Study Completion (Dev)	Fund Sound Science Study Completion (Dev)	
			Coastal Portion of State-Wide Plan Must be Based on SSI (C-C)		

# Ground vs. Surface

Concern for use of aquifer and use of surface water to relieve aquifer were discussed by several participants

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	<p>Sustainable Use of Floridan Aquifer (C-C)</p> <p>Use of Aquifer (C-C)</p> <p>Plan to Recognize Differences in Surface &amp; Groundwater Issues (C-C)</p> <p>Sustainable Use of Aquifer Upper/Lower (C-C)</p>	<p>Use of Aquifer (C-C)</p>	<p>Protection from Saltwater Intrusion/ Encroachment (C/C)</p> <p>Use of Aquifer (C-C)</p> <p>Plan to Recognize Differences in Surface &amp; Groundwater Issues (C-C)</p>	<p>Price of Groundwater is 1/3rd Price of Surface Water (Ind)</p> <p>Use of Aquifer (C-C)</p>	
<b>WHAT'S WORKING</b>			<p>City of Savannah Long-Term Policies (Dev)</p>		
<b>WHAT'S NOT WORKING</b>			<p>Permits Needed for 10,000 GPD Withdrawal - Reduce Threshold for Groundwater Withdrawal (C-C)</p> <p>Restriction on Use of Aquifer (C-C)</p>		

# Ground vs. Surface

SCIENCE

TECHNOLOGY

POLICY

FINANCIAL

EDUCATION

SUGGESTED  CHANGES			<p>Restrict Some Large Commercial Users from Aquifer If They Could Use Surface Water (C-C)</p> <p>Incentives for Surface Water Use in Groundwater Areas (limited/coastal) (Ind)</p> <p>More Funding for Surface Water Treatment High Use Areas (Ind)</p> <p>Permits for Pond-Building (Ag)</p>	<p>Incentives for Surface Water Use in Groundwater Areas (limited/coastal) (Ind)</p> <p>More Funding for Surface Water Treatment High Use Areas (Ind)</p> <p>Funds to Build Pond (Ag)</p>	
	NEW  STRATEGIES		<p>Tax Incentives - Big Industry &amp; "The Little Guy" (Ind)</p> <p>Incentives for Alternate Sources (C-C)</p>	<p>Incentives to Have Large Groundwater Users Switch to Surface (C-C)</p> <p>Identify Top 5 to 10 Industrial Water Users, and Float a MultiMillion Dollar Bond Issue to Relieve Pressure/Demand on the Aquifer (Dev)</p> <p>Tax Incentives - Big Industry &amp; "The Little Guy" (Ind)</p> <p>Incentives for Alternate Sources (C-C)</p>	

# Ground vs. Surface

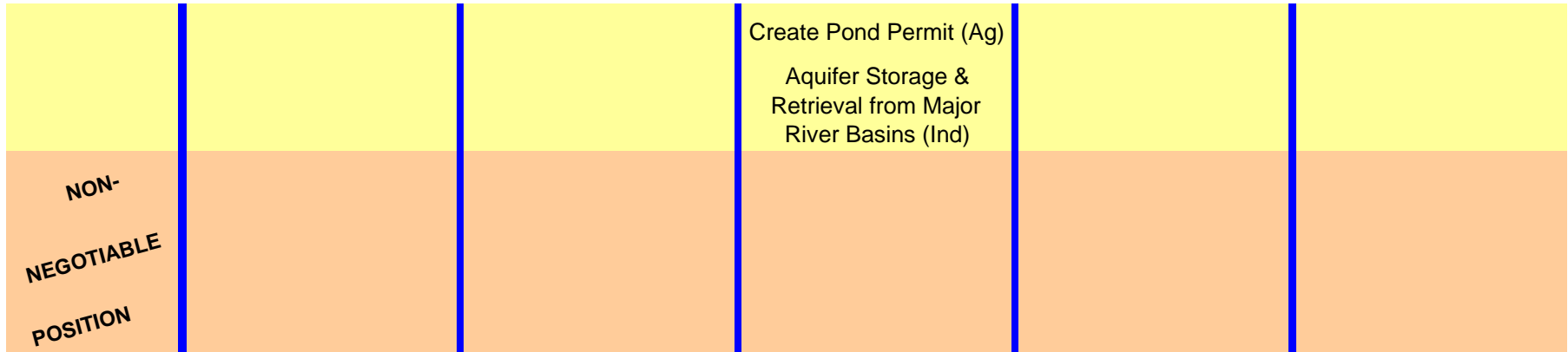
SCIENCE

TECHNOLOGY

POLICY

FINANCIAL

EDUCATION



# Non-Regulated User - Monitoring

In a variety of ways, the problem of diffuse, non-regulated users and how to measure and plan for their use was discussed

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	Monitoring Shallow Well Water Usage - Non-Aquifer Irrigation Water (Dev)	Is the Use of Water Properly Documented? (Ag)  Who will be responsible for Water Use Record Keeping? (Ag)	Tracking Agricultural Water Use (Dev)  Unregulated Deep Wells - Not Monitored (Dev)  Is the Use of Water Properly Documented? (Ag)  Monitoring Shallow Well Water Usage - Non-Aquifer Irrigation Water (Dev)  Who will be responsible for Water Use Record Keeping? (Ag)	Tracking Agricultural Water Use (Dev)  Monitoring Shallow Well Water Usage - Non-Aquifer Irrigation Water (Dev)	
<b>WHAT'S WORKING</b>			4 Inch Wells - 90 gal/min (Ag)		
<b>WHAT'S NOT WORKING</b>			No Historic Consistency in Enforcement - Only Large Systems Scrutinized, and Reporting Makes It Worse - Small Systems not (C-C)		Conservation (Public at Large) (Ind)

# Non-Regulated User - Monitoring

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
SUGGESTED CHANGES			More Accountability (Public & Non-Public) (Ind)		
NEW STRATEGIES			Lower Permit Thresholds (C-C) Need to Re-Visit Permitting Thresholds 100K GDP Plus Public Systems (C-C)		
NON-NEGOTIABLE POSITIONS					

# Ownership - Rights

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
MAJOR CONCERNS			Water "Credit" Trading (Dev) Water Permitting and Trading (Ag) Transfer & Sales of Water (Ag) Ownership (Ind) Water Ownership (Ind)	Water Permitting and Trading (Ag) Transfer & Sales of Water (Ag) Ownership (Ind)	Water "Credit" Trading (Dev)
WHAT'S WORKING				Environment vs. Commerce Balance (Ind)	
WHAT'S NOT WORKING			EPD Withdrawal Permitting (Dev)		
SUGGESTED CHANGES			Ag Permits - Ground & Surface - Issued on Same Basis as Others Presently, No Volume, No Use, Runs with the Land (C-C)		
NEW STRATEGIES					

# Ownership - Rights

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
NON-NEGOTIABLE POSITIONS			Private Property Rights for Landowners (Ag) Giving General Public All Water Ownership (Ind) State Claiming Water Rights Under Private Lands (Ag) Transfer of Water Out of Area (Ag) Selling Water Rights (Ag) Water as a Public Resource (Not a Commodity - No Permit Trading or "Property" Aspects (Env)		

# Priorities

Priority of use was discussed in the context of several issues

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
MAJOR CONCERNS			Allocation of Residential, Agricultural & Industrial Priority (Dev) Over-Restrictive Water Withdrawal Policy (Dev) Consumptive vs. Non-Consumptive (Ind)		
WHAT'S WORKING					
WHAT'S NOT WORKING			No Consolidation of Required Water Management Plan (C-C)		
SUGGESTED CHANGES			Seasonal Ag Use Accounted For - Don't Assume Year-Long Pumping for Agriculture (Ag) Household & Other Non-Essential Uses Limited (Ag) Reconcile Priorities /between Agriculture, Industry & Consumer-Residential (Dev)		
NEW STRATEGIES					
NON-NEGOTIABLE POSITIONS			Agricultural Use Only #2 Behind Human Consumption Within Area (Ag)		

# Regional

Regional problems and regional solutions were discussed, with various definitions of "region"

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>	Need for Regional Supplier Network (Dev)	Need for Regional Supplier Network (Dev)	Need for Regional Supplier Network (Dev)	Need for Regional Supplier Network (Dev)	Need for Regional Supplier Network (Dev)
		Availability Cost Delivery System (Major Trunk Lines) (Dev)	Availability Cost Delivery System (Major Trunk Lines) (Dev)		
	Public Perception of Surface Treated Water (Dev)	Public Perception of Surface Treated Water (Dev)	Regulation & Flow Metering Flow Taxes on Amount Pumped (Ag)		Public Perception of Surface Treated Water (Dev)
	Saltwater Intrusion (C-C)		Upper Floridan Aquifer/Coastal Georgia Management Plan Objectives (Ind)		
	Use of Aquifer (C-C)	Use of Aquifer (C-C)	Use of Aquifer (C-C)	Use of Aquifer (C-C)	
			Allowing Additional Well (Ag)	Allowing Additional Well (Ag)	
<b>WHAT'S WORKING</b>			Coastal Management Program Networks Existing Authorities Within the 11-County Coastal Region (More Implementation Needed) (Env)		
			Current EPD Policy Implementation of the Interim Strategy - Working Within the Last Year - Since Dr. Couch is Director (C-C)		

# Regional

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
			<p>Moratorium Pushing Communities into Compliance with Regional Authority (Intergovernmental Cooperation) (Dev)</p> <p>Savannah Policy on Providing Capacity to New Development (Dev)</p> <p>Interim Strategy by EPD is Working (C-C)</p> <p>Recent Implementation of Interim Policy (C-C)</p>		
WHAT'S NOT WORKING			<p>Interstate Planning - Georgia/Florida &amp; Georgia/South Carolina (C-C)</p> <p>Non-Connection of Various Municipal Systems to Standards - Costs, Etc. End-Cost per Gallon (Dev)</p> <p>Lack of Intergovernmental Cooperation (Dev)</p> <p>County Control of Water "Banks" (Dev)</p> <p>Interim Strategy (Ind)</p>		
SUGGESTED			<p>Permitting Process Should Be Adjusted on a More Local Basis Instead of Regional (Ag)</p>	<p>Fund the Development of a Water Supply Plan for Coastal Georgia (C-C)</p>	

# Regional

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
CHANGES			End Discrimination Between City of Savannah Obtaining Economic Benefit for Permit vs. Other Permit Holders (Dev)	End Discrimination Between City of Savannah Obtaining Economic Benefit for Permit vs. Other Permit Holders (Dev)	
NEW				Regional Water/Sewer Authority - At Least: Savannah/Chatham County, all of Effingham County, Bryan County & all Cities (Dev)	
STRATEGIES				Create Regional Water Authority with Diverse Board of Stakeholders (Dev) Coastal Georgia Regional Water Authority (Dev)	
NON-NEGOTIABLE POSITIONS					

# Water Quality

Participants from several Constituencies brought up Water Quality Issues

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
MAJOR CONCERNS	Quality of Water - Salt Water Intrusion & Surface Waters (Ind) Water Quality (Ind) Dissolved Oxygen (Ind)				
WHAT'S WORKING			Timber Audits on BMP by State (Best Management Practices) (Ag)		
WHAT'S NOT WORKING					
SUGGESTED CHANGES			No - To "Incentives" or Further Regulation of Forest Practices (Ag)		
NEW STRATEGIES					

# Water Quality

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
NON-NEGOTIABLE POSITIONS	Quality of Water (C-C)		Point Source Timber TMDL (Total Maximum Daily Load) (Ag)		

# Who Pays

Concern over who does and should pay were discussed several times

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
<b>MAJOR CONCERNS</b>			Who Pays Bill - Now & Future (Ind)	Who Pays Bill - Now & Future (Ind) Paying for Science & Policy (e.g. SSI)	
<b>WHAT'S WORKING</b>					
<b>WHAT'S NOT WORKING</b>			Under-Funding of Regulatory Enforcement, Monitoring, Assessment (No Significant Permit Fees in Georgia) (Env)	Under-Funding of Regulatory Enforcement, Monitoring, Assessment (No Significant Permit Fees in Georgia) (Env)	
			Distribution of Fees Earmarked for Environmental Management Protection (Env)	Distribution of Fees Earmarked for Environmental Management Protection (Env)	

# Who Pays

	SCIENCE	TECHNOLOGY	POLICY	FINANCIAL	EDUCATION
SUGGESTED CHANGES			Significantly Increases Permit Fees & Dedicate Them to Monitoring & Enforcement & Research (Env)	Significantly Increases Permit Fees & Dedicate Them to Monitoring & Enforcement & Research (Env)	
NEW STRATEGIES					
NON- NEGOTIABLE POSITIONS					

## V. Concluding Remarks & Plans for Phase II

One of consistent remarks of the participants in these sessions was that they liked the process. They responded very well to being asked their opinions on matters of great concern to them.

They also took their role quite seriously. There was a high degree of candor about what could be done better within each sector – obviously plenty of what the “other folks” can do – but also many ideas on things that could be done different or better within their own constituency.

Another related observation is that no participant from any constituency called for any policy changes that fly in the face of good science. All seemed to take good science as the given, within which all else is decided. What science is adequate to the task is where the differences will arise, but in these sessions, there was no sense that we need to sacrifice some basic resource need in the interest of short-term objectives.

It is evident from the “Buy-In/Input/Planning” theme that all constituencies are frustrated that they do not have adequate input into policy decisions. Many of them expressed an interest in that input being formalized through networks, further dialogue and other means of involvement in decision-making.

The interest in conservation and efficiency was the theme where financial considerations most often arose. The general tenor of these discussions lends one to believe that there are many more conservation and efficiency measures that people are ready to do, but the present structure does not incentivizes them. Participants are looking for some entity or institution to help them re-orient the economic drivers to reward conservation and efficiency. The key is to do this in a way that does not entail unintended consequences and incentivizes truly sustainable activities.

### Next Steps – Phase II

We will follow the release of this report with a second round of listening sessions, where we do three things simultaneously:

1. We will brief the participants in the proceedings from all five constituencies, while
2. Presenting these findings to an expanded group of stakeholders – those who participated will be encouraged to invite their peers – so that an expanded group of participants will be involved, and
3. We will discuss the themes identified by all five constituencies and how they relate, for the purpose of defining research needs that the Center can meet in the immediate future and what cross-constituency teams may be formed to begin to address the most critical themes.

Once we have had these discussions, we will be positioned to present the expanded findings to leaders at the local, state and federal level.

We then plan to use the collected information as a basis for the Center's future research and in any role we may play in future statewide water management planning. Additionally, we will develop and work with the cross-constituency teams needed to more fully discuss issues identified in this Listening Project.

## **Appendix – Participants List**

- Beckmann, Leo - Industry
- Boddiford, Joe - Agriculture
- Burgstewer, Will – Community Development
- Burnsed, Jimmy - City/County Government
- DeWitt, Gerald - Industry
- Hamilton, Rick – Industry
- Howard, Bill - Agriculture
- Jackson, Jackie – Community Development
- Joyner, Tom - Agriculture
- Kyler, David – Environmental Community
- Liotte, Michelle - Industry
- Marshall, Murry – Community Development
- Medders, Ron - Agriculture
- Mick, Nancy – Industry
- Miles, Sr., James – Agriculture
- Morris, Donnie - Agriculture
- Morris, Mickey - Agriculture
- Parker, Walter - City/County Government
- Rutherford, David – City/County Government
- Sawyer, John – City/County Government
- Scanlon, Bob – City/County Government
- Smith, Paul – City/County Government
- Smith, Lamar – Community Development
- Smith, Don – Community Development
- Smith, Mark – Community Development
- Williams, J.K. - Agriculture
- Williams, Ricky - Agriculture